

PATENT COOPERATION TREATY

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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(PCT Rule 71.1)

To:

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Applicant's or agent's file reference

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28.07.2005

IMPORTANT NOTIFICATION

International application No.
PCT/NL2004/000258

International filing date (day/month/year)
15.04.2004

Priority date (day/month/year)
15.04.2003

Applicant

FOUNTAIN TECHNOLOGIES B.V.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P64205PC00	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/NL2004/000258	International filing date (day/month/year) 15.04.2004	Priority date (day/month/year) 15.04.2003
International Patent Classification (IPC) or national classification and IPC B29C33/30, B29C45/26, B65D73/00, B29C45/00		
Applicant FOUNTAIN TECHNOLOGIES B.V.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 14 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (Indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 15.11.2004	Date of completion of this report 28.07.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Mathey, X Telephone No. +31 70 340- 2686	



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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☒ This report is based on translations from the original language into the following language EN, which is the language of a translation furnished for the purposes of:
 - ☒ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*.

Description, Pages

1-12 as originally filed

Claims, Numbers

1-15 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing *(specify)*:
- ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing *(specify)*:
- ☐ any table(s) related to sequence listing *(specify)*:

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 11

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 11

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form ☐ has not been furnished

☐ does not comply with the standard

the computer readable form ☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☒ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-10,12-15 .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-8,10
	No: Claims	9,12,13
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10,12-15
Industrial applicability (IA)	Yes: Claims	1-10,12-15
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

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Re Item IV.

1. The present application contains at least the following separate groups of subject-matter for which protection is sought:

Claims 1-10	Mold with exchangeable insert pieces and process for manufacturing a package
Claims 11,14,15	Package with closing parts connected by hinge means and being curved so as to enable the package to stand freely while in a closed state.
Claims 12-15	Package comprising a sub-package detachably connected by breaking lips.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

2. The three groups of claims relate to integrally molded hinged packages, which cannot be seen as contributing over the prior art, as it is already known, from Document US-A-2687157 for instance.
- 2.1 This document (US-A-2687157) is considered to be the closest prior art common to all groups of claims. It will be further referred to as D6. It discloses a mold for manufacturing a package for products comprising at least one mold cavity for forming the package, wherein hinge forming means (25,25a) are provided in the mold cavity for forming hinge means (15), while on a first side of the hinge forming means (25,25a) at least a first insert piece (22b) is provided for forming a perforation (13a) in a tab (13) and on the opposite side, at least a second insert piece (27) is provided for forming a receiving cavity in the package. It is to be noted that the obtained tab (13) and its opening (13a) are suitably shaped for suspension.
- 2.1.1 In its wording, the subject-matter of claim 1 differs from the content of D6 in that the first and/or second insert piece is exchangeable for different first and/or

second insert pieces with a configuration deviating from the first and second insert pieces respectively. These technical features can be seen as the special technical features of the first group of claims, i.e. the technical features defining the common contribution of these claims over the prior art.

2.1.2 The objective problem to be solved can be seen as improving efficiency in the mold making phase. One mold with lots of inserts to enable molding a whole range of products differing in shape and/or size requires less time and resources than as many molds as there are sizes and shapes of the product.

2.2.1 In its wording, the subject-matter of claim 11 differs from the content of D6 in that the closing parts of the package are slightly curved, at least adjacent the hinge means such that, in closed condition, the package can stand freely on the longitudinal edge located adjacent the hinge means or formed thereby. These technical features can be seen as the special technical features for the second group of claims.

2.2.2 The objective problem solved by the product of claim 11 can be seen as improving the displaying possibilities of the product. By being able to stand upright, it is easier to show on a shelf and it can make the product visible from a distance.

2.3.1 The subject-matter of claim 12 differs from the content of D6 in that the receiving space for packaging a product is at least partially defined by cover parts of a sub-package, these cover parts being connected to the closing part via breaking lips that enable a separation of the sub-package from the closing part of the package. These technical features can be seen as the special technical features for the third group of claims.

2.3.2 The objective problem solved by the product of claim 12 can be seen as making the package suitable for packaging several products that need to stay packed until they are actually used, or packaging one product in individual prepared doses.

- 2.4 As seen, the three sets of technical features are different and aim at solving distinct objective problems. Also, examining the possible correspondence by technical effect, one finds that the technical effect of the first special technical features on the first subject-matter is that production of a given product can be followed by production of a different product with a relatively easy and short change of configuration of the mold, and that the technical effect of the second special technical features on the second subject-matter is that the molded product can stand freely. In the third group of claims, the technical effect of the special technical features is that one of the packaged products can be taken away from the packaging without unpacking the other packaged products.

This appears to show lack of corresponding technical effect as well. Consequently, neither the objective problem underlying the subjects of the claimed inventions, nor their solutions defined by the special technical features allow for a relationship to be established between the subject-matter of said groups of claims, which involves a single general inventive concept.

In conclusion, the groups of claims are not linked by common or corresponding special technical features and define 3 different inventions not linked by a single general inventive concept.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

Re Item V.

- 1.1 The following documents are referred to in this communication:

D1 : GB 2 242 387 A (BAFBOX LIMITED) 2 October 1991 (1991-10-02)
D2 : US 5 918 741 A (VASUDEVA KAILASH C) 6 July 1999 (1999-07-06)
D3: DE 69 18609 U (FIRMA BLAUHAMMER ABPACK-GESELLSCHAFT E.O.
HAAS) 18 September 1969 (1969-09-18)
D4: JP 63 315210 A (HITACHI LTD) 22 December 1988 (1988-12-22)
D5: EP 615 827 A (ROUXEL SA) 21 September 1994 (1994-09-21)
D6 : US 2 687 157 A (COWAN CLIFTON J) 24 August 1954 (1954-08-24)

- 1.2 The following statements are made in the light of the comments under point VIII hereunder, whereby it is to be considered that unclear features cannot be employed for assessing novelty or inventive step in the sense of Article 33 PCT.

2 INDEPENDENT CLAIMS 1, 9 and 12

- 2.1 Document GB-A-2242387 is considered to be the closest prior art with respect to the subject-matter of claim 1. It will be further referred to as D1.

2.1.1 D1 discloses a mold (6,7) for manufacturing a package for products, comprising at least one mold cavity for forming the package, wherein hinge forming means (3) are provided in the mold cavity for forming hinge means. D1 further discloses the use of insert pieces (see fig. 5(A)-5(J)) in the mold to form slots and holes, the insert pieces being exchangeable for different insert pieces to obtain a different configuration, see pages 3-5 and fig. 3-5.

2.1.2 In its wording, the subject-matter of claim 1 differs from the content of D1 in that at least a first insert piece is provided on a first side of the hinge forming means for forming suspension means, and/or at least a second insert piece is provided on the opposite side of the hinge forming means for forming a receiving cavity in the package. It is to be noted that, due to the presence of the "and/or", one of the two features alone would fall within the scope of claim 1.

2.1.3 The problem to be solved by the present invention may therefore be regarded as enabling the package formed to be hung or suspended, or enabling the package to receive a three-dimensional object to be packed.

2.1.4 In the document D1, it is clearly stated that, the injection molding tool inserts being interchangeable, molded products of different shapes and sizes can be formed easily with the same injection molding tool in a different configuration. Even though suspension means are not mentioned, slots, holes and bosses are mentioned as possible features that are easy to form by using appropriate cores, see page 4, lines 21-33.

2.1.5 In view of D2, the solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

D2 discloses a case with a molded card (1) and a lid (2) configured to define an enclosed area, the lid (2) being integrally connected to the card member (1) by a hinge (4), the package receiving cavity of the lid being provided on one side of the hinge (4). The case also comprises suspension means (30) provided on the other side of the hinge. The skilled person would be aware of such types of packages, and of the fact that they can be integrally molded.

2.1.6 Therefore the features disclosed in D1 and D2 would be combined by the skilled person, without exercise of any inventive skills in order to solve the problem posed. The proposed solution in independent claim 1 thus cannot be considered inventive (Article 33(3) PCT).

2.2 With reference to point VIII, para. 4 of the present opinion, it is not possible to confirm whether claim 9 meets the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

2.3 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 12 is not new in the sense of Article 33(2) PCT.

D3 discloses a package (112) comprising a first and a second closing part connected thereto via hinge means, integrally molded, wherein at least one of the closing parts comprises a cavity such that if the closing parts are pivoted against each other along the hinge means, a receiving space is enclosed for packaging a product, whereby at least a part of the walls of the receiving cavity are defined by cover parts of a sub-package, which cover parts are connected to the closing parts via weakening means (109) such that after opening the package, the sub-package can be broken from the closing parts and is suitable as take-away package for at least one product packaged in the package, see page 3, lines 12-17, page 6, lines 5-15 and fig.6.

In view of the objection raised under point VIII 6 hereunder, D3 therefore fully anticipates the subject-matter of claim 12.

3 DEPENDENT CLAIMS

- 3.1 The additional features of claims 2 and 3 are present in D1, page 4, lines 26-33, and therefore the subject-matter of these claims cannot meet the requirements of the PCT in respect of inventive step.
- 3.2 The additional features of claims 4 and 5 are present in D1, page 3, lines 32-34, and therefore the subject-matter of these claims cannot meet the requirements of the PCT in respect of inventive step.
- 3.3 D1 also discloses a package comprising a first and a second closing parts (19,20) connected by snap fitting means (23,24) and side panels (1C,1D), the first and second closing parts being injection molded. When assembled against each other, the closing parts and the side panels defining a receiving space. It is the opinion of the examining instance that the so defined space is suitable for packaging a product. The package obtained is of parallelepipedic shape, being the result of suitable folding of flat blanks. As a consequence, it seems implicit that this parallelepipedic package can stand freely on any of its sides, therefore the subject-matter of claim 6 cannot meet the requirements of the PCT in respect of inventive step.
- 3.4 Claims 7 and 8 lacking clarity, see VIII 2 and 3, it is not possible in the current state of the application to confirm an inventive activity for the subject-matter of these claims.
- 3.5 The additional feature of claim 10 is present in D6, see col.3, lines 63-66 and fig.2, and therefore the subject-matter of this claim cannot meet the requirements of the PCT in respect of inventive step.
- 3.6 The additional feature of claim 13 is fully anticipated by D3 and therefore claim 13 is not new.
- 3.7 Claims 14 and 15 disclose features that are known per se, see D4 and D5 respectively, and therefore do not appear to contain any additional features, which in combination with the features of claim 12 can contribute to support an inventive step.

4. Claims 1-10 and 12-15 fulfill the requirements of Article 33(4) PCT.

Re Item VII

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D3 and D6 is not mentioned in the description, nor are these documents identified therein.

Re Item VIII.

The application does not meet the requirements of Article 6 PCT, because the claims 1, 7-10, 12, 14 and 15 are not clear.

- 1.1 The expression "a mold for manufacturing a package" is to be interpreted as "a mold *suitable* for manufacturing a package", see PCT Guidelines 5.23.
- 1.2 In claim 1, second line, the position in the sentence of the words "in the mold cavity" makes it difficult to understand. It has been interpreted as if it had been worded: "[...], wherein hinge forming means are provided in the mold cavity[...]".
- 1.3 The choice of a word like "while", in line 3, suggests a temporal relation and is more adapted for a process claim, "whereby" sounds a more appropriate term for an apparatus claim.
- 1.4 It is unnecessary to write that the hinge forming means are provided for forming hinge means, because it affect the conciseness of the claim, without improving its clarity, see PCT Guidelines 5.42. A similar remark can be made about the last three lines of claim 1: if the inserts are exchanged for different ones, then the configuration after the exchange would obviously differ from the configuration before the exchange.
2. In claim 7, the term "at least substantially" causes a lack of clarity of the subject-matter of the claim, since it cannot be concluded what the exact limitation of this expression is, see PCT Guidelines 5.38.

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- 3.1 The scope of limitation of the subject-matter of claim 8 is impossible to determine, since, two items are always on a straight line. Since the suspension means are at least two-dimensional and the receiving cavity is at least three-dimensional, an infinity of straight lines can be defined between these two features.
- 3.2 The expression "which line extends that right angle to a hinge line" is not meaningful, it has been interpreted as "which line extends at a right angle with a hinge line".
4. Claim 9 does not fulfil the criteria of clarity for several reasons:
- 4.1 Claim 9 attempts to define the subject-matter in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result, see PCT Guidelines 5.35. Moreover, a method for manufacturing a package cannot be defined by what happens once the object to be packaged has been put in the package, see PCT Guidelines 5.37.
- 4.2 The expression "located on a straight line above the centre of gravity" has no meaning since one can always position an object in space to align one chosen point of the object "straight above the centre of gravity".
- 4.3 It is not clear what is meant with "a preselected angle with the bottom side of the package", since this bottom side has not been described or defined itself. Moreover, a "side" is at least two-dimensional and therefore several directions can be define as belonging to that "side".
- 5.1 Claim 10 attempts to define a method of forming an object by the shape of the object formed. This is not an indication to the skilled man of which measures to take to produce the object but merely a statement of an underlying problem.
- 5.2 The expression "forming at least to interspaced lips" in claim 10 is not meaningful, and has been interpreted, according to the description, as "forming at least two interspaced lips".

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6. In claim 12, an attempt is made to define a product in terms of the process by which it is made ("integrally injection molded"). Attention of the applicant is drawn to the fact that it cannot be considered as a product feature defining the scope of the protection, see PCT Guidelines A5.26[1].
7. In claim 14, the packages are defined as having been "manufactured with a mold according to any of claims 1-8". Attention of the applicant is drawn to the fact that it cannot be considered as a product feature defining the scope of the protection, since packages which differ e.g. in form can indifferently be obtained by using different molds or the same mold with different inserts, without ending in a noticeable difference in the resulting end product, see PCT Guidelines 5.33.
8. In claim 15, an attempt is made to define a product in terms of the process by which it is made ("applied, in particular, through in mold labelling technique"). Attention of the applicant is drawn to the fact that it cannot be considered as a product feature defining the scope of the protection, see PCT Guidelines A5.26[1].
9. In order to facilitate quicker understanding of the claims, and in compliance with Rule 6.2b, reference signs between parentheses should have been put after features such as the *first, second, third or fourth insert*, or the *hinge forming or opening forming or cavity forming parts*.
10. The statement on page 12, lines 4-15 of the description is relating to a "possible variations within the framework of the invention", which is in contradiction with Article 6 PCT, see Guidelines 5.30.